Health Information and Illness Reporting related to the Eradication of Light Brown Apple Moth

David Ting, Ph.D.

Office of Environmental Health
Hazard Assessment, Cal/EPA



What are Pheromones?

- Lepidopteran pheromones insect "perfumes" to attract mates (males)
- Considered to be a preferable alternative to traditional pesticides (e.g., organophospates and carbamates)
 - Less toxic
 - More specific
 - Less amount used
 - Do not harm the target species, LBAM



Toxicity of Lepidopteran Pheromones

- Members have similar toxicological properties
 - Low acute toxicity through oral, dermal, and inhalation routes
 - Readily metabolized by the mammalian liver
- Due to the low acute toxicity, chemical structure, and low exposure, US EPA waived chronic toxicity study requirements



Application Methods

- Twist tie (Isomate LBAM Plus)
- Aerial spray



Twist Tie

- A 20 cm (8 inches) long plastic tube
 - Pheromone (98% wt.)
- Contains 0.17 g (or 170 mg)
 pheromone released over 200 days
- Low release rate



Twist Tie

- Hung on tree branches
 - Approximately 8' from the ground
- Exposure
 - Low, due to the release method and the small amount of pheromone in a twist tie
- No adverse health effects expected



Twist Tie

- The US EPA and the California
 Department of Pesticide Regulation
 (DPR) found it to be safe
- Registered to be used
 - In business and residential areas
 - Around all agricultural products
 - In parks and forests



Aerial Spray (in the coming summer)

- Four pheromone formulations are being tested for effectiveness
- Inert ingredients not known at this time
- DPR registration required before use



Reporting Pesticide Related Illness

- By a patient
- By a physician



Reporting by a Patient

- If you suspect you have illness related to any pesticide exposure
 - For emergency, call 911
 - Go to a doctor or hospital
 - Remind the doctor to report to the local health department
 - Keep note of physical presence in relation to application: contact, proximity, time period



Reporting by a Physician

- Statutory requirement:
 - Call the local health officer or fax a Pesticide Illness Report/Confidential Morbidity Report
 - Call the California Poison Control Center, which will report to the local health officer



Pesticide Related Illness

- Once a case is reported:
 - The county agricultural commissioner will be informed of it and is responsible to investigate it
 - 2 state departments will be informed
 - DPR
 - OEHHA



Physician Training, Illness Tracking

 OEHHA will conduct outreach and training to physicians regarding the health effects of pesticide formulations and requirements for reporting illnesses.

 OEHHA will lead the state effort to track and evaluate illness complaints relating to LBAM applications.



Contact Information

- Sam Delson, Deputy Director for External and Legislative Affairs, OEHHA
 (916) 324-0955; sdelson@oehha.ca.gov
- Anna Fan, Ph.D., Chief, Pesticide and Environmental Toxicology Branch, OEHHA (510) 622-3165; afan@oehha.ca.gov
- David Ting, Ph.D., Chief, Pesticide and Food Toxicology Section, OEHHA
 (510) 622-3226; dting@oehha.ca.gov